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NPIC/PSAS/408-65
16 November 1965

MEMORANDUM FOR: Chief, Procurement Division
Office of Logistics

THROUGH: Chief, Support Staff, NPIC

ATTENTION: [redacted] 25X1

SUBJECT: Solicitation for Proposal for Development of 30 Inch Wide Photographic Print Straightener

1. It is requested that copies of the enclosed R&D objective entitled "Super Wide Print Straightener" be sent to the organizations listed below; they may then submit their proposals any time before 17 December 1965.

2. The nature of the work as set forth in the objective is unclassified, but association with the source is confidential.

3. The Plans and Development Staff plans to commit [redacted] 25X1 towards this project.

4. List of prospective contractors: 25X1

[redacted]

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DDR - NOT A DUPE

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[redacted] 25X1

[redacted] 25X1

Colonel, USAF
Assistant for Plans and Development

Enclosure:
Design Objectives

Distribution:
Original and 1 - Addressee
1 - C/SS/NPIC
1 - [redacted] 25X1
1 - [redacted]
1 - Project Files/DB
1 - Chrono/DB
1 - Chrono/P&DS

NPIC/P&DS/DB: [redacted] (10 Nov 65) 25X1

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SECRET

8 November 1965

DEVELOPMENT OBJECTIVE

Super Wide Print Straightener

1. INTRODUCTION: This document outlines the technical requirements and physical specifications for development of a wide paper print straightener.

1.1 Background: Photographic papers are emulsion coated on one side only; this results in differential drying of the two sides of the paper causing contraction of the emulsion and a decided curl toward the emulsion side.

Although presently available commercial print straighteners will not accommodate prints larger than 14" in width, there does not appear to be any technical reason to prevent their being made to accommodate larger print sizes.

1.2 Concept: Briefing prints are frequently made in sizes larger than 14" in width. It is intended that this print straightener will be used to remove the curl from paper prints, thus permitting their use without the necessity of mounting. It is further intended that the equipment be of such weight and size that it may be readily moved from one location to another. It is assumed the design of the equipment will require electricity for its operation and will make use of liquids for generation of moisture or vapor. Any solution used must be non-toxic to the user and non-injurious to the emulsion or equipment. Government representatives will review submitted proposals and selection will be made on the basic of design ingenuity, simplicity, time schedule, and cost.

1.3 Scope: This project is for the development, design, fabrication, test and evaluation of a prototype model of a print straightener to accept paper prints up to 30 inches in width. Literature requirements will include monthly reports, a final report of the development, and such specification and drawings as may be required to permit subsequent procurement of the equipment.

1.4 Philosophy: Several methods presently are being used to accomplish print straightening; one is to stretch the emulsion by passing the print over a series of rollers with the paper base next to the roller. This method sometimes damages the emulsion. The more acceptable method makes use of a combination of rollers and the application of moisture. The moisture technique is acceptable; however, any method may be used so long as it meets other requirements stated herein and does not damage the print or the emulsion, or have any adverse effects on dry mounting.

2. REQUIREMENTS:

2.1 Physical:

2.1.1 The print straightener shall consist of a feed table, belts, or rollers as may be necessary to transport the prints through the equipment and a basket or container to receive the finished prints.

2.1.2 If water moisture or other liquids are required, the equipment shall include a drain valve in the tank to remove the liquid.

2.1.3 If heat is required for the generation of moisture or vapor, electric heating elements shall be contained in the body of the tank or shall be a securely attached immersion type heater. Either method shall include thermostatic control. A control will also be provided to automatically shut off the heating element when a predetermined solution level in the tank has been reached.

2.1.4 The equipment shall be no more than 34 inches in width and the length, including the feed platform and the take up receptacle, shall be held to a minimum consistent with other requirements. The equipment is intended to be table mounted. However, if the total weight exceeds 100 pounds it shall be provided with stand and casters.

2.1.5 Electrical: The equipment shall be designed to operate on 110-120 volt 60 cycle single phase AC, with a maximum power load not to exceed 15 amps.

2.2 Operational:

2.2.1 This print straightener shall be capable of accepting either single or double weight black and white paper prints of the commercial variety (such as Kodabromide, enlarging; or AZO, contact;) in any width from 70mm to 30 inches at continously variable speeds. The equipment shall be as light and compact as is consistent with other requirements.

2.2.2 The design of this equipment shall be such that it may be operated by one person. It shall not require any attention except when prints are actually being fed through the straightener.